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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
WANG, QUAN ZHEN	
ART UNIT	**PAPER NUMBER**
2613	
MAIL DATE	**DELIVERY MODE**
11/17/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/531,507	OKI ET AL.	
	Examiner	Art Unit	
	QUAN-ZHEN WANG	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-17,19 and 35-40* is/are pending in the application.

4a) Of the above claim(s) *2,5,7,9,11,14 and 19-23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,6,8,10,12 and 14-17* is/are rejected.

7)☐ Claim(s) *24 and 35-40* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *See Continuation Sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :4/14/05,11/2/07,12/18/07,4/4/08.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1,4, 6, 8, 10, 12, 14-17, 24, and 35-40, in the reply filed on 10/8/2008 is acknowledged. Claims 2, 5, 7, 9, 11, 13, and 19-23 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected groups, there being no allowable generic or linking claim.

Specification

2. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Chang et al. (U.S. Patent Application Publication US 2004/0208587 A1).

Regarding claim 1, Chang teaches an optical node device (fig. 1) comprising a switching unit (fig. 1, PXC) that switches an optical signal, wherein a preset section in which data transmission is possible without 3R (Reshaping, Retiming, and Regeneration) relay is defined as a 3R section, the optical node device comprising:

a storing unit (paragraph 0041; Note that Chang teaches that "all the nodes would have a complete picture of the cells making up the network) which stores 3R section information (photonic cell information) corresponding to topology information of an optical network to which the optical node device itself belongs; and

a determining unit (fig. 3, engineering block 20) which determines autonomously whether the optical node device itself is an optical node device that implements 3R relay when setting an optical path passing through the optical node device itself, with reference to the 3R section information stored in the storing unit which stores the 3R section information (figs. 2 and 6-8).

Regarding claim 4, Chang further teaches that the system includes a source node, a destination node, and the optical path is bi-directional (fig. 2). The determining unit of Chang inherently decides which optical node device implements 3R relay in both the downstream optical path and the upstream optical path.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 6, 8, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (U.S. Patent Application Publication US 2004/0208587 A1).

Regarding claims 6, 8, 10, 12, and 14-17, Chang further teaches a 3R source node, a 3R destination node, a source node, and a destination node (figs. 2 and 4). Chang further discloses a 3R source node of any one of a plurality of different 3R sections overlapping on an optical path that passes through the one optical node device (fig. 5b). Chang does not specifically disclose

when one optical node device is a 3R source node of any one of a plurality of different 3R sections overlapping on an optical path that passes through the one optical node device, and the one optical node device is not a 3R source node or 3R destination node of other 3R sections, the determining unit is provided with: a comparing unit which compares the number of 3R relay implementations for both the case where the one optical node device functions as a 3R source node and where the one optical node device does not function as a 3R source node, with reference to the 3R section information related to an optical path from the one optical node device to the destination node; and a unit which, when the number of 3R implementations in the case where the one optical node device functions as a 3R source node is less than the number of 3R

implementations in the case where the one optical node device does not function as a 3R source node, decides that the one optical node device is an optical node device that implements 3R relay based on a comparison result from the comparing unit;

when one optical node device is an optical node device corresponding to a 3R destination node, and is not a destination node, the determining unit is provided with a unit which decides that the one optical node device is an optical node device that implements 3R relay by using the one optical node device as a 3R source node, and a next hop optical node device as a 3R destination node;

when one optical node device does not belong to any one of 3R sections having a 3R source node on an optical path that passes through the one optical node device, the determining unit is provided with a unit which decides that the one optical node device is an optical node device that implements 3R relay by using the one optical node device as a 3R source node, and a next hop optical node device of the one optical node device as a 3R destination node;

wherein the determining unit is provided with a unit which decides that the optical node device itself is a 3R source node in the upstream optical path with an optical node device which has sent the message as a 3R destination node when the optical node device itself receives the message in the upstream optical path.

However, the claimed comparing unit, deciding unit, and the steps would have been obvious for one of ordinary skill in the art. For example, Chang specifically discloses, regardless of routing objectives and implementations, there will come a time when one needs to know whether a potential next hop can be reached without OEO

regeneration (fig. 6 and paragraph 0031-0032). Chang further discloses to decide a route and to decide at which node in the optical path needs to go through OEO for signal regeneration (fig. 7, paragraphs 0033-0034); Chang further discloses that the selection of next hop would depend on whether OEO was required (fig. 8, paragraph 0037).

Allowable Subject Matter

7. Claims 24 and 35-40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shin et al. (U.S. Patent Application Publication US 2007/0212065 A1) disclose an apparatus and method of an optical burst switching network;

Roorda et al. (U.S. Patent Application Publication US 2004/0208558 A1) disclose an optical metro network;

Ozugur et al. (U.S. Patent Application Publication US 2003/0189933 A1) disclose a technique for differentiating label switched paths;

Fukashiro et al. (U.S. Patent Application Publication US 2002/0093712 A1) disclose an optical crossconnect apparatus;

Levandovsky et al. (U.S. Patent Application Publication US 2002/0063915 A1) disclose a method and apparatus for validating a path in a switched optical network.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to QUAN-ZHEN WANG whose telephone number is (571)272-3114. The examiner can normally be reached on 9:00 AM - 5:00 PM, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

11/16/2008
/Quan-Zhen Wang/
Examiner, Art Unit 2613